

REMARKS

Claims 1-4 and 7-10 are pending. The amendment to claim 1 is supported in the specification on p.4, line 7 or [0012]. No new matter has been added.

Claims 1-4 and 7-10 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (Office Action, p.2)

The language regarding the molecular weight is deleted making this rejection moot.

In the Office Action, the Examiner rejected claims 1-4 and 7-10 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,219,958 to Noomen in view of U.S. Patent No. 5,677,379 to Becker. (Office Action, p.3)

While Becker was cited for the disclosure of tributyl phosphine, it will be shown below that Becker does not, in fact, specify or suggest using tributyl phosphine as a catalyst in a Michael reaction. Further, Becker does not disclose a 1-component system. For at least these reasons, it would not have been obvious to modify Noomen, which does not teach the catalyst as being a tertiary alkyl phosphine, with the tributyl phosphane of the 2-component system of Becker. It is respectfully requested that this rejection be reconsidered.

Becker does not disclose the use of tributyl phosphane. Although tributyl phosphane is described as a component E (catalyst) in Becker (col.13, lines 51-67), it is listed as being the same as the strong basic amine catalysts of Noomen (col.5, lines 15-32). Further, only the strong basic catalysts are used in Examples of Becker.

Meanwhile, the tertiary alkyl phosphine (C) is used in the claimed invention in order to avoid the problems such as cloudiness of the lacquer due to bad solubility as well as considerable yellowing caused by strong basic catalysts.

The claimed invention uses catalyst, tertiary alkyl phosphine, specifically in a Michael reaction to avoid the traditional problems of using conventional Michael addition catalysts, such

as 2-component systems, due to limited storage stability and "cloudiness to the lacquer due to bad solubility, as well as considerable yellowing":

[A] drawback of the Michael addition is that, similar to the isocyanate-alcohol system, due to the high reactivity, the pot-life; or in other words, the storage stability and the processing time of the curable mixtures are limited . . .

Therefore, in general, only so-called "2-component systems" are feasible, wherein the catalyst is added just before the application of the coating composition or the reactive components are stored separately and mixed just before the application of the coating.

* * *

Another drawback is that the Michael addition requires a strong basic catalyst . . . [which] are known to impart cloudiness to the lacquer due to bad solubility, as well as considerable yellowing.

(Specification, p. 3, ln. 20-4, ln. 6, lns. 21-22).

The rejection asserts that Becker suggests that alkyl phosphanes are functionally equivalent to the amine catalysts of Noomen in Michael addition curable compositions. However, tributyl phosphane is described as being **the same as the strong basic amine catalysts in Becker**. Thus functional equivalence with strong basic amine catalysts properly means that the effects of tributyl phosphane to avoid said problems, such as cloudiness of the lacquer due to bad solubility as well as considerable yellowing caused by the strong basic amine catalysts, are not recognized at all in Becker. Therefore functional equivalence with Noomen does not make the claimed invention *prima facie* or logically obvious because tertiary alkyl phosphine (C) is used in the claimed invention *in order to avoid the problems caused by strong basic catalysts*.

Accordingly, it is clear that Becker, in fact, does not disclose the use of the tertiary alkyl phosphine (C) in the Michael addition reaction like in the claimed invention, and thus the relevant descriptions of Becker combined with Noomen cannot logically be a motivation to derive the claimed invention. Further it is conceded in the rejection, that Noomen does not teach the catalyst as being a tertiary alkyl phosphine.

Becker relates to a "2-component system", whereas the claimed invention relates to a "1-component system."

Becker relates to a "2-component system" in that the components are stored separately and are not mixed until before use or for example for producing coating agents (col. 1, lines 4 to 5; col. 14, lines 44 to 51; Example 2). In addition, contrary to the claimed invention, Becker does not disclose or suggest a 1-component system, and instead specifies a 2-component binder system wherein tributyl phosphine is stored separately from the reactants until use:

Preferably components A₁, A₂, B and C are stored together as the binder component 1 and components D and E [tributyl phosphine] are stored together as the hardener component 2. Component F is added to component 1 or 2, depending on the functionality.

This means that components 1 and 2 are stored separately and are not mixed until before use or e.g. for producing coating agents.

(Becker, col. 14, Ins. 44-51). -

On the other hand, the invention as now claimed relates to a "1-component system" (page 3, line 20 to page 4, line 6; page 4, lines 21 to 22).

Accordingly, it is simply not logical for a person having ordinary skill in the art to try using the tributyl phosphane of Becker, *stored separately in a second component*, in the composition of Noomen to attempt to achieve the claimed invention, which is a 1-component system.

It is respectfully requested that this rejection be reconsidered and withdrawn.

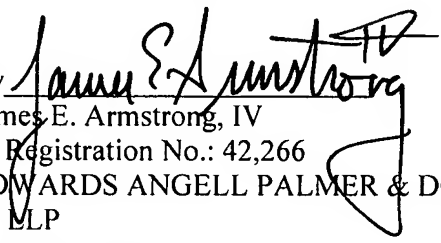
In view of the above amendment, applicant believes the pending application is in condition for allowance.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105.

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Respectfully submitted,

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